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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/554,282

10/25/2005

Alain Lecompte

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EXAMINER

IBRAHIM, MEDINA AHMED

ART UNIT

PAPER NUMBER

1638

MAIL DATE

DELIVERY MODE

12/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/554,282

Applicant(s)

LECOMPTE, ALAIN

Examiner

Medina A. Ibrahim

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Applicant's response filed 10/10/08 in reply to the Office action of 07/10/08 has been entered. Claims 1-12 are pending and are examined.

All previous objections and rejections not set forth below have been withdrawn in view of Applicant's amendment to the claims and/or upon further consideration.

Claim Rejections - 35 USC § 103

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sidikou-Seyni et al (Plant Cell Tissue and Organ Culture (1992), vol. 29:83-91)) in view of Tan et al (HortScience (1990) 25(11):1396-1398) and Applicant's admitted prior art (Paragraph bridging pages 2 and 3; and page 3, 1st and 2nd full paragraph) and further in view of Delesalle et al (US 6,803,497 B1). This rejection is repeated for the reasons of record as set forth in the last Office action of 07/10/08. Applicant's arguments filed 10/10/08 have been fully considered but are not deemed persuasive.

Applicant argues that the Sidikou-Seyni reference teaches a method of producing a clone of 474 plants by in vitro multiplication using protoplast and that the plants produced are F1 hybrids. Applicant also argues that the reference fails to teach the step of producing F2 hybrids from F1 and the step of forcing the plants underspecified conditions as required by the instant claims. Applicant, therefore, asserts that the one skilled in the art would have found no suggestion in the reference that would have

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guided him towards performing the steps of selfing F1 plants and forcing F2 generation under the conditions set forth in the claims (response, pp. 3-4).

These are not found persuasive. As stated in the last Office action, Sidikou-Seyni reference is relied upon because it teaches that F1 hybrids can be produced from *Cichorium intybus* and *Cichorium endivia*. One of ordinary skill in the art who reads Sidikou-Seyni reference would know that crossing the *Cichorium intybus* with the *Cichorium endivia* will produce F1 hybrid plants and that the F1 hybrids plants are recombinant plants, since the species are different. In addition, the claims encompass crossing any variety of *Cichorium indivia* with any variety *Cichorium intybus*, and ordinary plant breeder would be able to produce F1 hybrids or any generation hybrid plants. Since the rejection is one of obviousness and not one of anticipation, the reference need not teach a method of selfing F1 hybrid plants and forcing the resultant F2 plants.

Applicant also argues that TAN reference fails to teach the deficiency of SIDIKOU-SEYNI and Applicant lists four reasons to support this position: 1) the aim of the reference was to improve yield and quality; 2) the reference does not aim in producing novel hybrid chicory plants from crossing and selection 3) the forcing step was performed at 11+/- 1 C, and it does not teach the specific conditions of step d) of claim1; and 4) it does not overcome the deficiency of SIDIKOU-SEYNI reference (response, pp. 4-6).

These are not found persuasive for the following reasons: 1) TAN teaches a method for improving marketable yield and quality of hydroponically forced chicory using roots. Similarly, at paragraph 6 of Applicant's specification states, "cultivating endives through forcing is intended to produce chicories that will be marketed. Therefore, the aim of the reference is not different from that of the instant specification. 2) The TAN reference is relied upon because it provides a method for improving marketable yield and quality of hydroponically forced chicory using roots (see Table 1; Figures 3 and 5) rather than because it provides a novel hybrid. 3) The forcing conditions used in the reference need not exactly be the same forcing conditions as recited in the claims because the cultivars or plants used are not similar cultivars. TAN uses *Cichorium intybus* while the claims refer to a hybrid produced from *Cichorium intybus* x *Cichorium endivia*. At the time this application was filed, one of ordinary skill in the art would be able to find the forcing conditions suitable for any vegetable species including *Cichorium* sp. 4) The TAN reference does overcome the deficiency of SIDIKOU-SEYNI because it teaches that chicory plants have been cultured by forcing before Applicant's invention.

Applicant further argues against the admitted prior art cited in the specification, RICK (Examiner wishes to thank Applicant for providing a copy of the reference). Applicant contends that the F1 and subsequent F2 generation plants of RICK display a high heterogeneity in vigor, flattened, twisted and deformed. Applicant points to page 464, last sentence and page 465, second sentence and 6th paragraph of the reference. Applicant also argues that the F1 hybrids do not grow more vigorous than either parent;

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Applicant points to page 461, last sentence of 2nd paragraph. Applicant, therefore, contends that the reference would dissuade one skilled in the art to generate F2 hybrid plants from the F1 hybrids (response, pp. 6-8).

These are not found persuasive because the results obtained from the preliminary experiment of RICK together with the suggestions provided in the reference would actually motivate one of ordinary skill in the art to produce F1 hybrids and subsequent generations from *Cichorium intybus* x *Cichorium endivia* for the following reasons: 1) RICK, paragraph bridging pages 459 and 460, states "[T]hese preliminary experiments demonstrated that without artificial aid under field conditions chicory could hybridize freely with endive." At the paragraph bridging pages 460 and 461, the reference states "[o]n the basis of this experience, it is imperative to isolate well plantings of endive and chicory intended for breeding purposes....". 2) Regarding the F1 hybrids, it is noted that while RICK states that F1 hybrids do not grow with greater vigor than either parent, the reference also states that F1 hybrids do not display defects at any growth stage (see page 461, last sentence of 2nd paragraph). 3) Regarding F2 hybrids, the reference states "since endive and chicory can be hybridized the question of possible horticultural value of the derivatives naturally arises." The reference suggests that much larger populations of the F2 and successive backcrosses to either parent would need to be grown before a satisfactory answer could be provided. 4) The reference also suggests that incorporating the extremely erect habit of certain chicory varieties into endive to obtain a self-blanching endives, and incorporating the gene for fasciation in endive into salad varieties of chicory to increase leaf production. Therefore,

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the RICK reference does not dissuade the use of *Cichorium intybus* x *Cichorium endivia* to produce hybrids.

Applicant content that Delesalle reference teaches a method for producing a chicory plant that exhibits cytoplasmic male sterility from *Helianthus Annuus*, but it does not teach nor discloses crossing *Cichorium Intybus* with *Cichorium Endivia* (response, pp. 8-10).

Applicant's argument that Delesalle does not teach direct crossing of *C.intybus* with *Cichorium indivia* is persuasive. However, in the instant Office action, Delesalle is relied upon because it teaches the importance of the various types of chicory and endives plants in Agricultural food industry. In column 1, lines 16-19, the reference states that *Cichorium intybus* plants which exhibit male sterility have been suggested previously and that male sterile plants are useful for the production of hybrid plants.

Therefore, it would have been obvious to one of ordinary skill in the art to use the method of producing *Cichorium* F1 hybrids by crossing *Cichorium intybus* and *Cichorium endivia* as taught Sidikou-Seyni et al, and to modify that method by incorporating the forcing techniques taught by Tan et al to improve the marketable qualities of *Cichorium*, and further incorporate the step of generating F2 hybrids by selfing the F1 as taught by Applicant's admitted prior art with a reasonable expectation of success. Because of the importance of the various types of *Cichorium intybus* and *Cichorium indivia* in Agricultural food industry as taught By Delesalle and because the easy hybridization between *Cichorium intybus* and *Cichorium indivia* as taught by

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Applicant's admitted prior art, RICK, one would have been motivated to produce recombinant Cichorium hybrids. Depending upon the specific cultivar employed, forcing and the culture conditions, Cichorium hybrids having desired phenotypes including those listed in claims 2 and 8-11 can be produced using the methods taught by each of RICK, Tan et al and Sidikou-Seyni et al. Therefore, the invention as whole was a prima facie obvious.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

See also *KSR International Co. v. Teleflex Inc. (KSR)*, 550 U.S. ___, 82 USPQ2d 1385 (2007) where it states “[w]hen a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Id.* at ___, 82 USPQ2d at 1396.” The court also states “[t]he obviousness analysis cannot be confined by . . . overemphasis on the importance of published articles and the explicit content of issued patents. . . . In many fields it may be that there is little discussion of obvious

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techniques or combinations, and it often may be the case that market demand, rather than scientific literature, will drive design trends.” KSR , 550 U.S. at ___, 82 USPQ2d at 1396.

The MPEP 2141, section III states “[p]rior art is not limited just to the references being applied, but includes the understanding of one of ordinary skill in the art. The prior art reference (or references when combined) need not teach or suggest all the claim limitations..... The “mere existence of differences between the prior art and an invention does not establish the invention’s nonobviousness.” Dann v. Johnston, 425 U.S. 219, 230, 189 USPQ 257, 261 (1976).

Remarks

No claim is allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Medina A. Ibrahim whose telephone number is (571)272-0797. The examiner can normally be reached on M-TH 8:00 am to 5:30 PM, and every other Friday from 8:00 AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MAI
12/22/2008

/Medina A Ibrahim/
Primary Examiner, Art Unit 1638